

# RAILROAD COMMISSION OF TEXAS

# HEARINGS DIVISION

OIL AND GAS DOCKET NO. 05-0280992

APPLICATION OF O'BENCO, INC. TO AMEND FIELD RULES FOR THE CHENEYBORO (COTTON VALLEY) FIELD, NAVARRO COUNTY, TEXAS

**HEARD BY:** 

Andres J. Trevino, P.E. - Technical Examiner

Laura Miles-Valdez - Legal Examiner

**HEARING DATE:** March 19, 2013

**APPEARANCES:** 

REPRESENTING:

APPLICANT:

Bryan Lauer Joe Sanders Greg Cloud

O'Benco, Inc.

# **EXAMINERS' REPORT AND RECOMMENDATION**

# STATEMENT OF THE CASE

This is the unprotested application of O'Benco, Inc. to amend the temporary field rules last adopted in Order No. 5-73,523, effective October 29, 1979 for the Cheneyboro (Cotton Valley) Field that currently provide for the following:

- 1. 660'-1,320' well spacing:
- 2. 320-acre oil and gas units with a maximum diagonal of 6,000 feet, 160-acre optional oil and gas units with a maximum diagonal of 4,500;
- Allocation based on 100% acreage for oil and gas wells, 100% AOF for gas 3. wells.

O'Benco, Inc. requests that field rules be amended as follows:

1. Designation of the field as the correlative interval from 9,595 feet to 9,960 feet as shown on the log of the McCormick Operating's Baum Estate No. 1;

- 2. 330'-0' well spacing, 200' dual lease line spacing, take point provisions, off lease penetration, a 33' horizontal box rule;
- 3. 320-acre oil and gas units with a maximum diagonal of 6,000 feet, 160-acre optional oil and gas units with a maximum diagonal of 4,500; (No Change)
- 4. Allocation based on 100% acreage for oil and gas wells, 100% AOF for gas wells.(No Change)
- 5. Stacked Lateral rule.

The examiners recommend that field rules for the Cheneyboro (Cotton Valley) Field be amended as proposed by O'Benco, Inc.

#### **DISCUSSION OF THE EVIDENCE**

The Cheneyboro (Cotton Valley) Field was discovered in February 1978 at approximately 9,700' subsurface depth. Special field rules were first adopted in 1979. The field has had as many as There are five operators and four active producing oil wells and eleven active producing gas wells in the field. The field currently produces 13 BOPD and 750 MCFPD. The field has produced 3.2 MMBO, 2.9 MMCF of casinghead gas, 3.9 BCF gas well gas and 0.132 MBC.

O'Benco is amending the existing field rules in the Cheneyboro (Cotton Valley) Field to adopt horizontal rules to allow efficient and orderly development of the Cheneyboro (Cotton Valley) Field with horizontal wells. Bottom hole pressure measurements taken from wells drilled since 2006 indicate horizontal drilling may recover additional reserves that otherwise may not be recovered. Currently the field rules only provide for vertical well development. The proposed horizontal rules are similar to horizontal rules found in other fields being developed with horizontal wells in the State.

O'Benco requests adoption of 330' lease line spacing, 0' between-well spacing and dual lease line spacing to be consistent with the spacing rules of other fields being developed with horizontal wells. O'Benco is requesting a spacing rule requiring a minimum of 200 feet to the lease line from the first and last take points of a horizontal drainhole, with 330 feet from lease lines on all points on the drainhole perpendicular to the lease line. The 200-foot lease line spacing for the first and last take points allows maximum recovery from vertical fractures created when fracture stimulating the Cotton Valley. The 0' between-well spacing will allow the drilling of horizontal wells with maximum flexibility to maximize oil recovery.

O'Benco requests several other standard provisions that are commonly adopted when horizontal well development is anticipated. Additionally, the Cheneyboro (Cotton

Valley) Field is located under the Richland-Chambers Lakeshore Area near a planned development that has restrictive surface location requirements for wells proposed to be drilled near the Lakeshore area. The proposed provisions will allow the placing of future wells at surface locations compliant with Richland-Chambers Lakeshore Area ordinance. The provisions include take point language to allow flexible drilling of the laterals and off-lease penetration to allow the additional recovery of reserves by allowing the lateral to be horizontal at a legal lease line location. Off-lease penetration will allow increased hydrocarbon recovery as the lateral will make greater contact with the formation as the well is turned from vertical to lateral adjacent to the lease. Off-lease penetration will allow the first take point to be closer to the lease line. An additional stage frac will be placed on each lateral if off lease penetration is allowed.

O'Benco requests to establish a designated interval for the field. The interval from 9,595 feet to 9,960 feet as shown on the log of the McCormick Operating's Baum Estate No. 1 should be designated as the Cheneyboro (Cotton Valley) Field. This interval includes the entire Cotton Valley Lime formation.

The gross thickness of the Cotton Valley Lime in this field is 365 feet in the type log well. The interval is thick enough that may support "stacked" horizontal drilling. Amending the rule as proposed will allow stacked lateral drainholes to be simultaneously drilled from multiple surface locations. The stacked lateral rules also require that each point of a stacked lateral horizontal drainhole be no more than 300 feet in a horizontal direction from any point along any other horizontal drainhole of the same stacked lateral well.

O'Benco proposes a 33 foot "box rule" for horizontal drainhole wells that would allow drainholes to deviate 33 feet from either side of their permitted track without the necessity of obtaining a Statewide Rule 37 exception. O'Benco requests that the allocation formula and the well density for the field remain unchanged. The allocation formula for gas wells has been suspended administratively since 2006, O'Benco requests the allocation formula remain suspended for gas wells as there is market demand for 100% of the gas produced.

# FINDINGS OF FACT

- 1. Notice of this hearing was given to all operators of wells in the Cheneyboro (Cotton Valley) Field at least ten days prior to the date of hearing.
- 2. The Cheneyboro (Cotton Valley) Field was discovered in February 1978 at approximately 9,700' subsurface depth.
- 3. There are five operators, four active producing oil wells and eleven active gas wells in the field. The field currently produces 13 BOPD and 750 MCFPD. The field has produced 3.2 MMBO and 3.9 BCF gas well gas.
- Special field rules were first adopted in 1979. Rules provide for 660'-1,320' well spacing, 320 acre units, optional 160-acre density and 100% acreage

allocation. There are currently no rules for horizontal drilling.

- 5. The interval from 9,595 feet to 9,960 feet as shown on the log of the McCormick Operating's Baum Estate No. 1 should be designated as the Cheneyboro (Cotton Valley) Field. This interval includes the entire Cotton Valley Lime formation.
- 6. Field rules that provide for 330 feet lease line spacing, eliminate between well spacing for all wells in the field, take point language, off lease penetration and a "box rule" for horizontal wells will provide consistency with other fields under going horizontal drilling.
- 7. The Cheneyboro (Cotton Valley) Field is located under the Richland-Chambers Lakeshore Area near a planned development that has restrictive surface location requirements for wells proposed to be drilled near the Lakeshore area.
- 8. The proposed 33 foot "box rule" is necessary to allow operators reasonable minor deviations from the wellbore track that has been permitted.
- Allowing off-lease penetration will allow an additional stage frac to be placed on each lateral causing the recovery of additional reserves that would otherwise be left in the ground.
- 10. Given that the gross thickness of the Cotton Valley Lime in this field is 365 feet, stacked laterals may be required to fully develop the reservoir.
- 11. Allocation based on 100% acreage will remain unchanged and is a reasonable formula which will protect correlative rights of mineral owners in the field.
- 12. The allocation formula for gas wells has been suspended administratively since 2006, O'Benco requests the allocation formula remain suspended for gas wells as there is market demand for 100% of the gas produced.

#### **CONCLUSIONS OF LAW**

- 1. Proper notice of this hearing was given to all persons legally entitled to notice.
- 2. All things have occurred or been accomplished to give the Railroad Commission jurisdiction in this matter.
- 3. Amending field rules as proposed by O'Benco, Inc. is necessary to prevent

waste and protect correlative rights.

### **EXAMINERS' RECOMMENDATION**

Based on the above findings and conclusions, the examiners recommend that field rules be amended for the Cheneyboro (Cotton Valley) Field to establish a designated interval, reduce lease line spacing to 330 feet, eliminate between-well spacing for all wells, add take points, allow off lease penetration, a 33 foot "box" rule and add stacked-lateral rules.

Respectfully submitted,

Andres J. Trevino, P.E. Technical Examiner

Laura Miles-Valdez Legal Examiner